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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.            |
|--|-------------|----------------------|---------------------------------|-----------------------------|
| 10/527,468   | 12/22/2005  | Oliver Fahnle        | 1248.001                        | 2190                        |
| 23598  | 7590        | 09/18/2007           |                                 |                             |
| BOYLE FREDRICKSON S.C.<br>840 North Plankinton Avenue<br>MILWAUKEE, WI 53203 |             |                      | EXAMINER<br>SCRUGGS, ROBERT J   |                             |
|  |             |                      | ART UNIT<br>3723                | PAPER NUMBER                |
|  |             |                      | NOTIFICATION DATE<br>09/18/2007 | DELIVERY MODE<br>ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@boylefred.com

## Office Action Summary

Application No.

10/527,468

Applicant(s)

FAHNLE, OLIVER

Examiner

Robert Scruggs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 35-55 is/are pending in the application.
- 4a) Of the above claim(s) 1-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is in response to the amendment received on June 26, 2007. Applicant has cancelled claims 1-34 and added new claims 35-55 therefore claims 35-55 will be fully examined. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 35-37 39, 40-46, 48-55, are **Finally** rejected under 35 U.S.C. 102(b) as being anticipated by Hashish et al. (5700181).

In reference to claims 35-37, 40, 43-46, 49 and 52, Hashish et al. discloses a device for abrasive machining of surfaces of components comprising, a tool having an inlet and an outlet (see figure below) wherein the cross sectional area of the inlet is smaller than the cross sectional area of the outlet, a supply unit (64) for conveying to the inlet a liquid brought under various pressures in which abrasive agents are dissolved and emerged from the outlet, positioning means formed as hydraulic fluid and a control unit (96) both of which are part of the device, the control unit also sets a processing pressure by raising or lowering the nozzle with member (96) and the positioning means guide the tool across a surface to be machined (16) and simultaneously position (Column 4, Lines

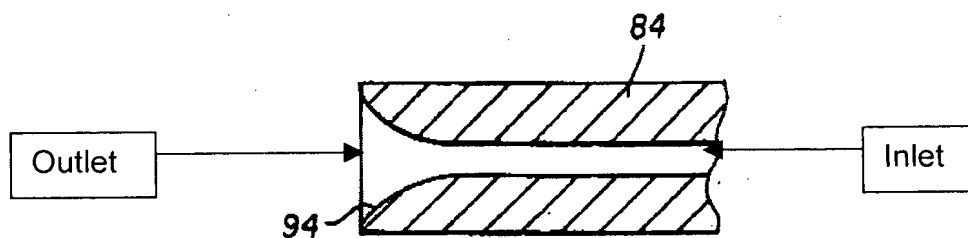
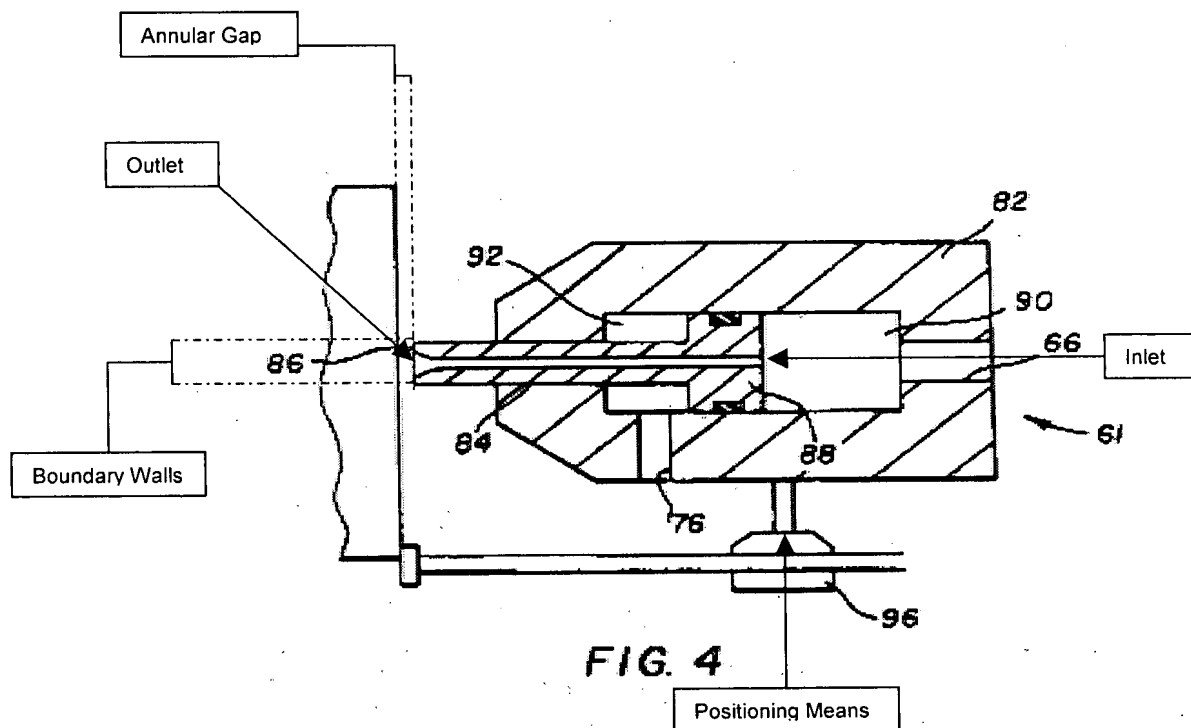
55-60) said tool in such a manner that the outlet faces the surface to be machined such that an area of an annular gap (see figure below) defined by boundary walls (see figure below) of the outlet and the surface to be machined is smaller than a cross-sectional area of the inlet, the cross-sectional area of the inlet being greater by a factor of at least 5 than the cross-sectional area of the annular gap, the height of the annular gap being smaller than 3mm and is preferably about 1mm (Column 3, Line 62-Column 4, Line 9), since the height of the annular gap can be varied, one could select a height that provides the cross-sectional area of the inlet being greater by a factor of at least 5 than the cross-sectional area of the annular gap.

In reference to claims 39 and 48, Hashish et al. also discloses that outlet having a circular cross-section, and that the tool has a cylindrical outer contour in the region of the outlet (as seen in the figure below).

In reference to claims 53-55, Hashish et al. also discloses multiple pressures that could be used which include pressures being under 20 bar or even 5 bar (see Column 3, Lines 20-25).

In reference to claims 41, 42, 50 and 51, Hashish et al. inherently discloses that the outer diameter of the outlet could be formed by half of an aperture of an optical component and also being conformed to the smallest radius of the optical component depending on the type and size of the optical component selected by a user.

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### Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 38 and 47 are **Finally** rejected under 35 U.S.C. 103(a) as being unpatentable over Hashish et al. (5700181) in view of Sotozaki et al. (6643882). Hashish et al. discloses the claimed invention previously mentioned above, but is silent in providing a rotary unit for rotating the workpiece. However, Sotozaki et al. discloses a rotary unit (Figure 1b) (73 and 70) that supports a workpiece (W). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, of Hashish et al. with a rotary unit, in view of Sotozaki et al. in order to effectively machine the entire surface of the workpiece.

6. Claims 43 and 52 are **Finally** rejected under 35 U.S.C. 102(b) as anticipated by Hashish et al. (5700181) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Zeng (6244927). Assuming arguendo, that Hashish et al. does not disclose the positioning means, which include a control member that controls the positioning of the positioning means. Then, the examiner would use Zeng which teaches of a positioning means that includes a control unit (30) used for controlling the positioning of the tool according to the surface data of a workpiece (16) (Column 2, Lines 47-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the positioning means of Hashish et al., with positioning means formed as a control unit, in view of Zeng, in order to more effectively and accurately control the position of the tool in a polishing or grinding process.

***Response to Arguments***

7. Applicant's arguments filed June 26, 2007 have been fully considered but they are not persuasive.

8. Applicant contends that, **"a positioning means formed as part of the device."**

a. However, the examiner respectfully disagrees with this statement. As clearly shown in figure 4 of Hashish et al. the positioning means (previously described above) are clearly attached to the nozzle and are considered to be apart of the device therefore the rejection is considered proper and thus maintained.

9. Applicant contends that, **"a positioning means which is construed to position a tool in such manner that the outlet faces the surface to be machined and to adjust the height of the annular gap defined by boundary walls of the outlet and the surface to be machined without changing the pressure under which the supply unit conveys the liquid, such that the area of the annular gap is smaller than the cross-sectional area of the inlet. Such a structure is entirely absent from '181 patent."**

b. However, the examiner respectfully disagrees with this statement. The fact that the control member (96) may or may not affect the hydraulic pressure is moot because it still raises or lowers the nozzle therefore the control member could raise or lower the nozzle while maintaining the same pressure depending on the desired characteristics needed by a user. Therefore, the examiner believes the rejection is proper and thus maintained.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Scruggs whose telephone number is 571-272-8682. The examiner can normally be reached on Monday-Friday, 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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